In the Claims:

Claims 15 and 17 are amended herein. The remaining claims are not amended.

1-14 (canceled)

15. (currently amended) A process for preparing a micro-pillar structure, characterized in that a solution having a polymer dissolved in a hydrophobic organic solvent is cast on a substrate, said organic solvent is evaporated in a moist atmosphere of relative humidity of 50% or higher to condense moisture contained in an atmosphere prevailing on a surface of said cast solution into micro-droplets, said micro-droplets are dispersed on the surface of said cast solution or in said cast solution into a packed structure, said micro-droplets, condensed and dispersed on the surface of said cast solution or in said cast solution, are evaporated to obtain a porous honeycomb structure with said droplets used as casts, and said porous honeycomb structure is at least bisected by peeling in a thickness direction, thereby obtaining honeycomb structures wherein micro-pillars are regularly formed and arranged by said bisection on peeled sections, characterized in that said polymer is composed of a hydrophobic or biodegradable polymer and an amphipathic polymer and, optionally, a modifier is incorporated therein,

and said hydrophobic or ~~biodegradable~~ polymer comprises a polymer having ~~a a poly(meth)acrylate, or~~ a polystyrene ~~as a~~ basic skeleton and said biodegradable polymer comprises a polymer having a poly(meth)acrylate basic skeleton.

16. (canceled)

17. (currently amended) A process for preparing a micro-pillar structure according to claim 16, wherein said polymer comprises 50 to 99% of said hydrophobic polymer or said biodegradable polymer with the rest being ~~said~~ an amphiphilic polymer.

18. (canceled)

19. (original) A process for preparing a micro-pillar structure according to claim 15, wherein said moist atmosphere is adjusted to a relative humidity of 50 to 95%.

20. (original) A process for preparing a micro-pillar structure according to claim 15 or 19, characterized in that said atmosphere is an ordinary air atmosphere.

21. (original) A process for preparing a micro-pillar structure according to claim 15, characterized in that operation for evaporation of said organic solvent in said moist atmosphere is carried out by blowing an atmosphere having a high humidity onto an evaporation interface of said organic solvent.

22. (original) A process for preparing a micro-pillar structure according to claim 15, characterized in that peeling operation is carried out by use of an adhesive tape.

23. (canceled)

24. (canceled)

25. (previously presented) A process for preparing a micro-pillar structure according to any one of claims 15 to 17, 19 and 21-24, characterized in that said micro-pillars are arranged at a length of 0.1 to 50 μm, a tip length of 0.01 to 20 μm and a spacing of 0.1 to 100 μm.

26. (previously presented) A process for preparing a micro-pillar structure according to any one of claims 15 to 17, 19 and 21-24 above, wherein said micro-pillars are oriented in any direction except for a vertical direction and set with anisotropy.

27. (original) A process for preparing a micro-pillar structure according to claim 26, characterized in that said anisotropic micro-pillars are obtained by a peeling treatment with transverse shearing stress in such a way that when the porous honeycomb structure that is a micro-pillar precursor is sectioned by peeling in the thickness direction, the resulting micro-pillars are oriented in any direction except for the vertical direction.